



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0003317.00126 US1

Applicants: Thomas S. Murphy) Examiner: Desai, A. H.
Stanley J. Piaseczynski)
Filed: June 25, 2003) Art Unit: 1771
Serial No.: 10/603,224)
Entitled: Pressure-Sensitive Adhesive Tapes)

CERTIFICATION UNDER 37 CFR § 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Mail Stop MS Amendment, Commissioner for Patents, P.O. Box 1450, Arlington, VA 22313-1450 on the date indicated below.

Dated: June 14, 2007

Signature: _____

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Arlington, VA 22313-1450

DECLARATION OF MICHAEL C. MILLER UNDER 37 CFR §1.132

I, Michael C. Miller, declare as follows:

1. I am, and since July of 2005 have been, Technical Resource Manager of Andover Healthcare, Inc. 9 Fanaras Drive, Salisbury, MA 01952. ("Andover"). Andover is the assignee of the above-referenced U.S. patent application.

2. I understand that claims in the above-referenced application have been rejected on the basis of U.S. Patent No. 2,740,403 of G. B. E. Schueler ("Schueler"). I understand also that Figure 3 of Schueler discloses a fabric that is woven "so that the spaces between the yarns leave openings 9 of say some 0.01" side." (Col. 2, lines 49-50). Schuler states that this fabric is "similar" to the fabric, shown in Figure 1, in which the yarns are about 0.005" in diameter; and the drawings in Schueler show that the yarns in the two fabrics (Fig. 1 and Fig. 3) have the same diameters. Schueler also seems to say that the fabrics he employed were cotton open-mesh fabrics (Col. 2, lines 3-4, 13 and 15-16). Based on these disclosures, I understand that Schueler's

fabric 9 of Figure 3 is an open-mesh cotton fabric having about 67 yarns per inch, in both the warp and weft directions.

3. I attempted to obtain woven cotton fabric samples in which there were about 67 yarns per inch in both the warp and weft directions. I did not find such a commercially available fabric, but I was able to obtain a woven cotton fabric having 75 yarns per inch in the warp direction and 44 yarns per inch in the weft direction. Attached Exhibits A and B are photographs of this fabric; the photographs show an inch-marked ruler extending, respectively, in the warp and weft directions.

4. I also obtained samples of a warp knit weft insertion fabric. The fabric has 18 yarns per inch in both the warp and weft directions. The warp yarns are 30 denier; the weft yarns are 70 denier. Exhibits C and D are photographs of this fabric; again each photograph shows an inch-marked ruler extending, respectively in the warp and weft directions.

5. I took the pictures of Exhibits A through D using a Sony DSC-F717 digital camera.

6. Comparing the photographs of Exhibits A through D, it is apparent that the openings between adjacent yarns in the 18 x 18 fabric are considerably larger than those between adjacent yarns in the 75 x 44 fabric.

7. I coated samples of both the 75 x 44 and 18 x 18 fabrics with a water based pressure sensitive adhesive, using a Mayer rod coating bar on a draw down table. The resulting materials were oven-dried and then placed on release paper.

8. I then placed a small sample of each adhesive coated fabric on a glass slide on a VWR GZ6-364-1 microscope, and took microscope pictures using a Pax cam 2 digital camera. I also took pictures of uncoated fabric samples using the same microscope and camera. In all of these microscope photographs, I used the same field of view.

9. Exhibits E and F are microscope pictures of the 75 x 44 fabric. Exhibit E shows the fabric before coating; Exhibit F shows the fabric after it was coated in the manner described above.

10. With reference to Exhibit E, the microscope picture shows the uncoated 75 x 44 fabric, and the image was lighted from below the slide better to show the openings in the material. As the image shows, in this type of material, individual fibers tend to have a high distribution that form in the open holes of the fabric.

11. The center-to-center distances between adjacent yarns in the fabric shown in Exhibit E can easily be calculated, and the size of the openings may be scaled. The distance between the centers of adjacent yarns is about 0.023 inches in the weft direction (in which there are 44 yarns per inch) and is about 0.013 inches in the warp direction (in which there are 75 yarns per inch). Scaling from the photograph, the diameter of the yarns is about 0.006 to 0.008 inches, and the size of the openings between adjacent yarns in the uncoated fabric is about 0.015 to 0.016 inches in the weft direction by about 0.006 to 0.007 inches in the warp direction.

12. With reference to Exhibit F, the microscope picture shows the coated 75 x 44 fabric. The openings between yarns are almost completely closed due to both the size of the openings (the adhesive bridges from yarn to yarn over the openings), and the fact that the stray fibers extend into the small holes. The image was again lighted from below. The small black areas in the openings show the areas in which there is no adhesive. In the ten holes shown, there are a few very small remaining pin holes in seven, relatively more in two (on the right in each row) and the largest (still far smaller than the original opening) in the opening in the upper left. This photograph does not show the entire coated sample, but Exhibit F is a fair representation of the coated fabric sample as a whole. Overall, the adhesive closed the major fraction of the openings between yarns, and only a small fraction of the area of the openings between yarns was not closed. It also will be seen that the diameters of the yarns have increased somewhat, likely because they swell when impregnated with adhesive.

13. Exhibits G, H and I are microscope pictures of the 18 x 18 fabric. Exhibits G and H show the fabric before coating; Exhibits I and J show the fabric after it was coated in the manner described above.

14. The center-to-center distances between adjacent yarns in the 18 x 18 fabric shown in Exhibits G and H also can easily be calculated, and the size of the openings may be scaled. In each direction (warp and weft), there are 18 yarns per inch the distance between the centers of adjacent yarns is about 0.0555. Scaling from the microscope pictures of Exhibits G and H, the size of the openings between adjacent yarns in the uncoated fabric is about 0.05 inches by about 0.06 inches, the diameter of the 30 denier weft yarns is about 0.005 inches and the diameter of the 70 denier warp yarns is about 0.015 inches.

15. With reference to Exhibits I and J, these microscope pictures show the coated 18 x 18 fabric. The image in Exhibit I was lighted from below the slide; the image in Exhibit J was lighted from above. In both images, the areas in black are open, i.e., without adhesive. In both photographs, it will be seen that the areas between adjacent yarns remained largely open. The adhesive coating closed only a very small fraction of the openings; there was a small amount of bridging at the corners, and adhesive also projected inwardly a small (compared to the size of the opening) distance from some of the opening sides. Using a digital micrometer, I found that the openings, after coating, remained about 0.050 inch. X 0.040 inch.

16. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the patent in which this declaration is made.

Date: June 13, 2007


Michael C. Miller

Exhibit A

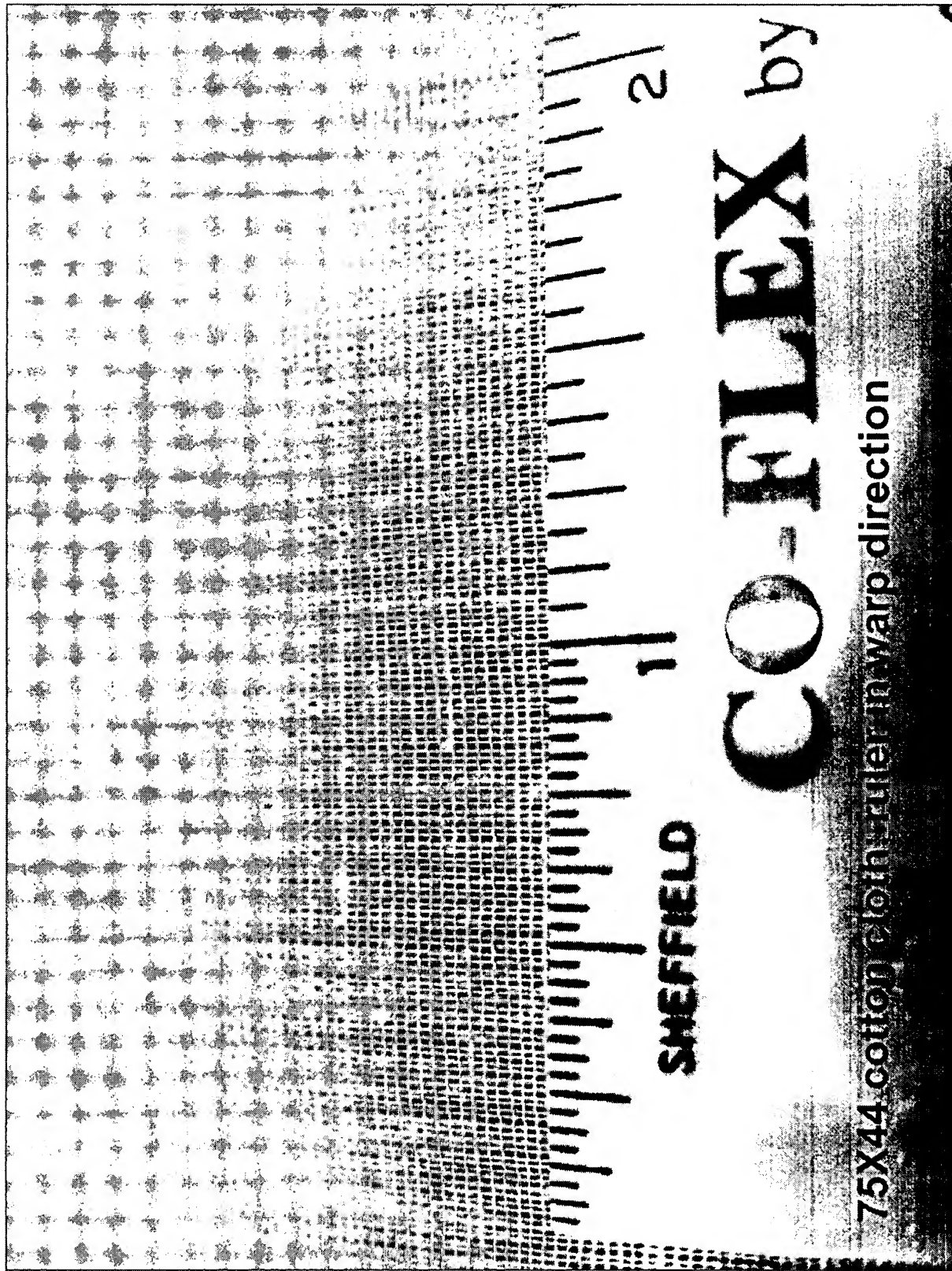


Exhibit B

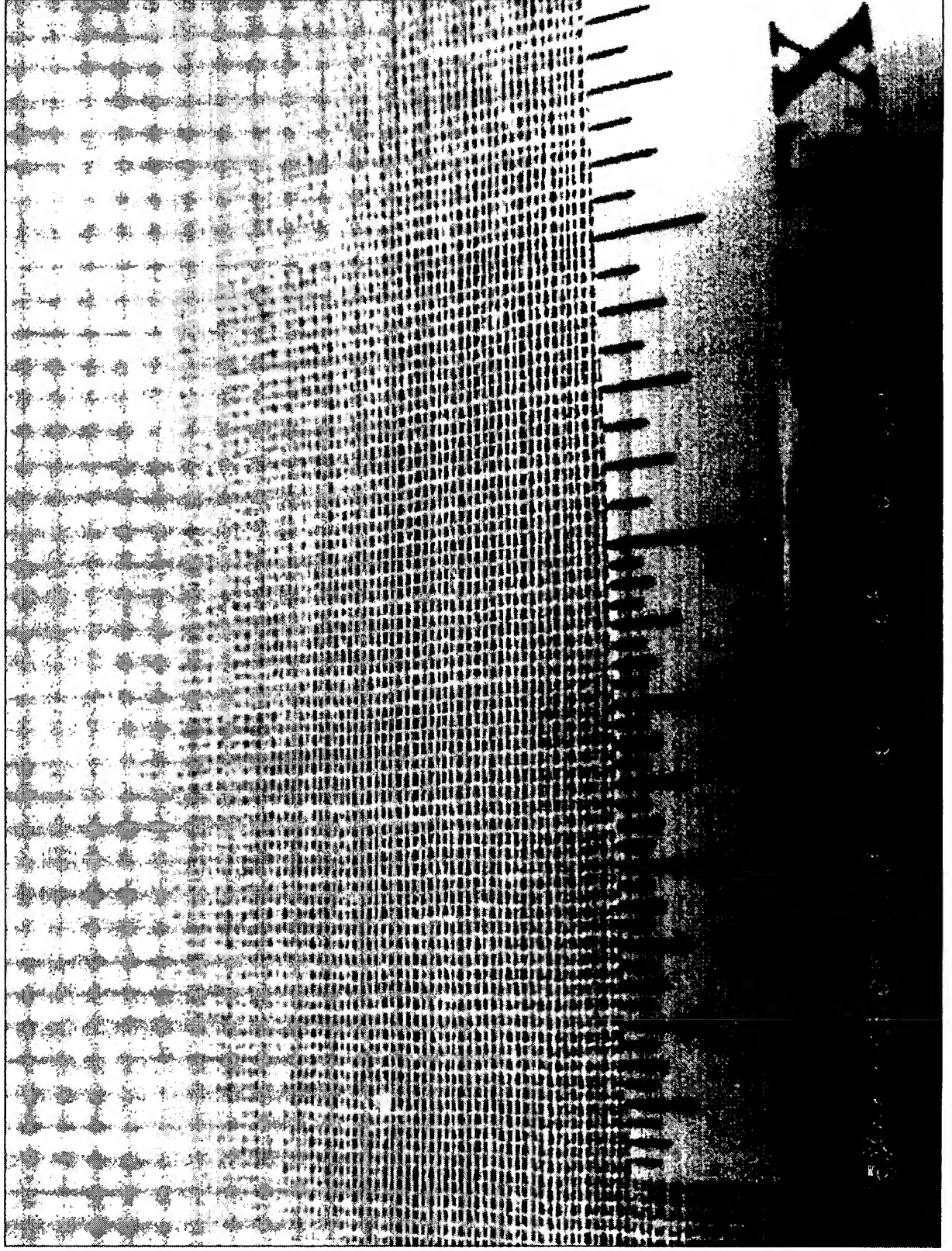


Exhibit C

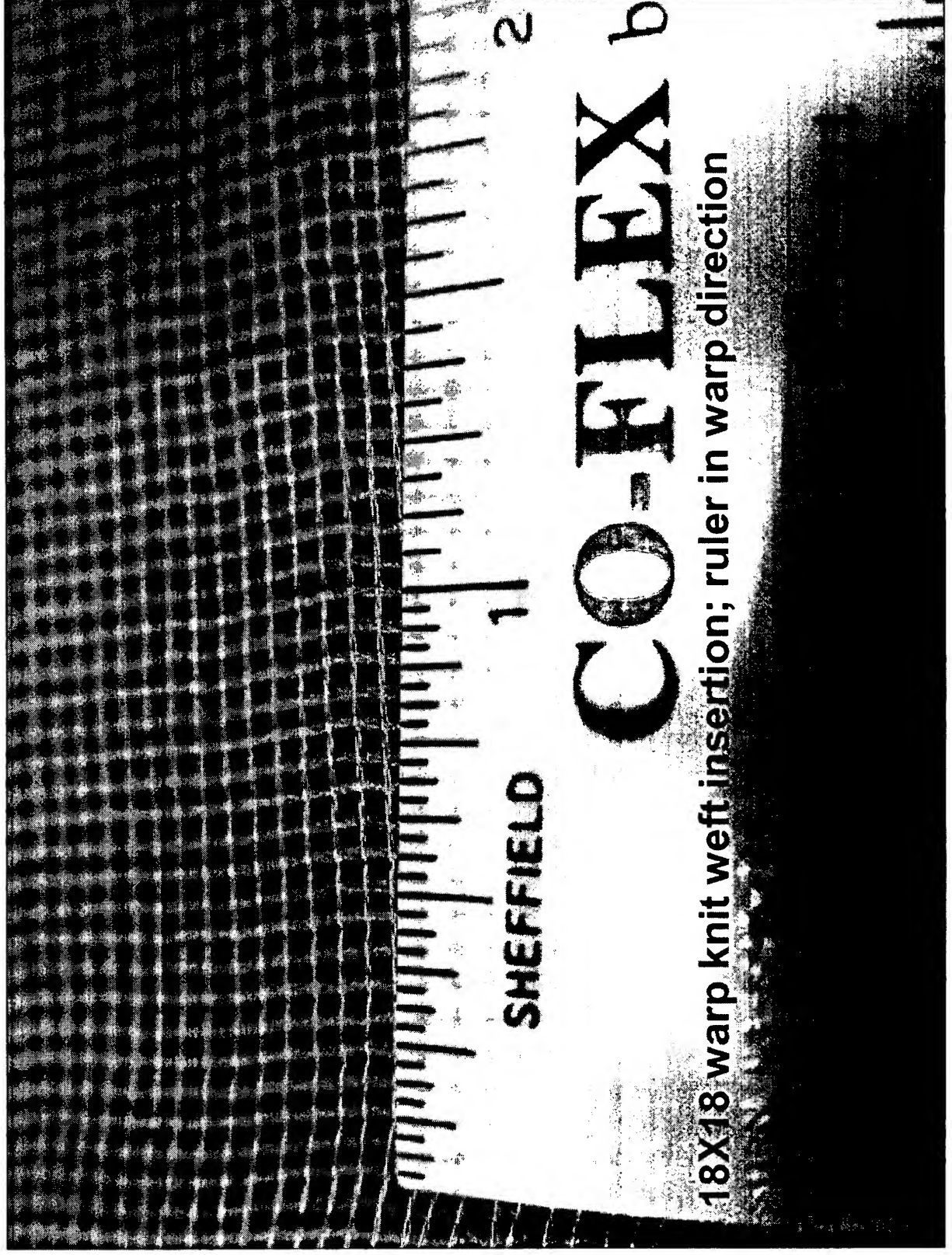


Exhibit D

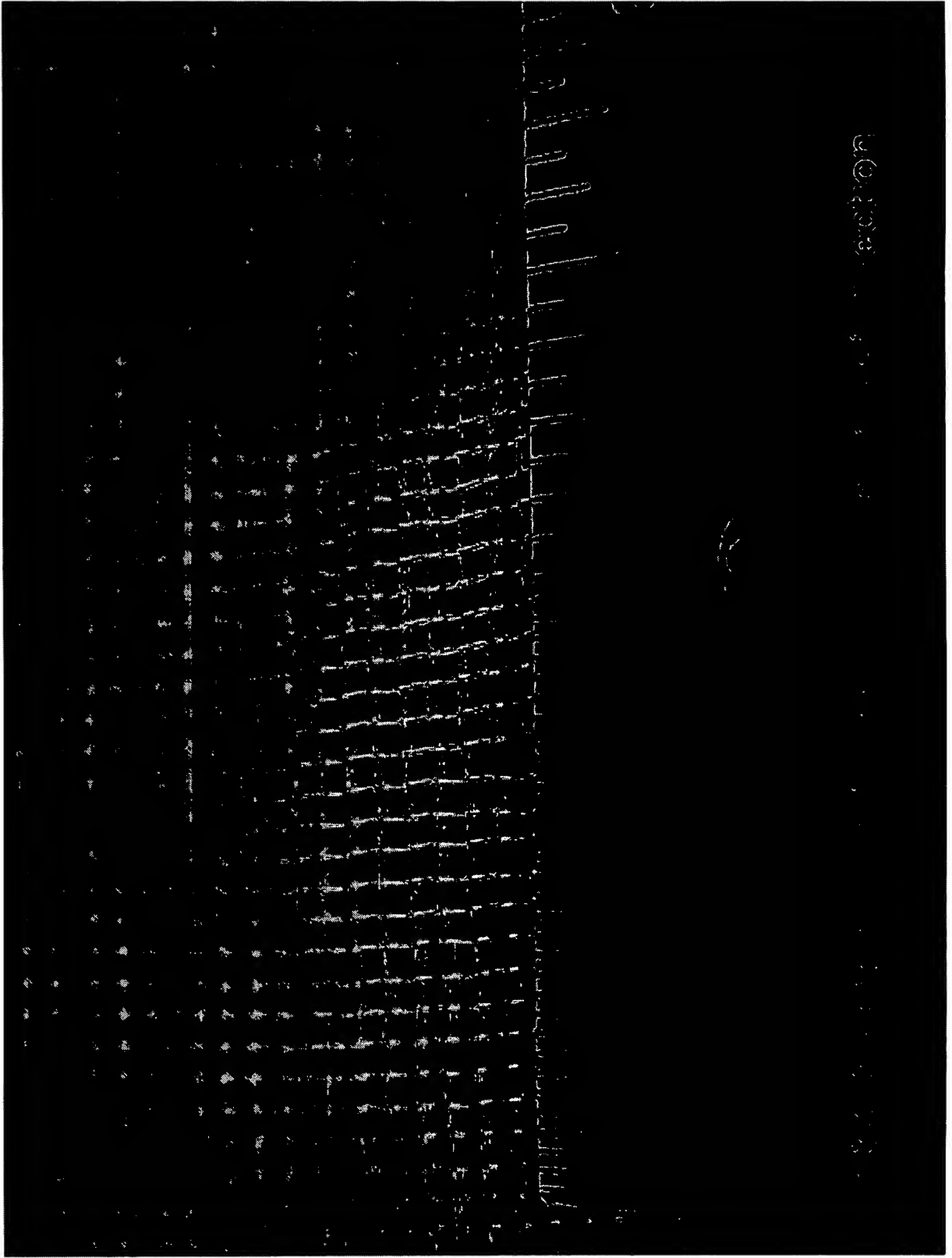
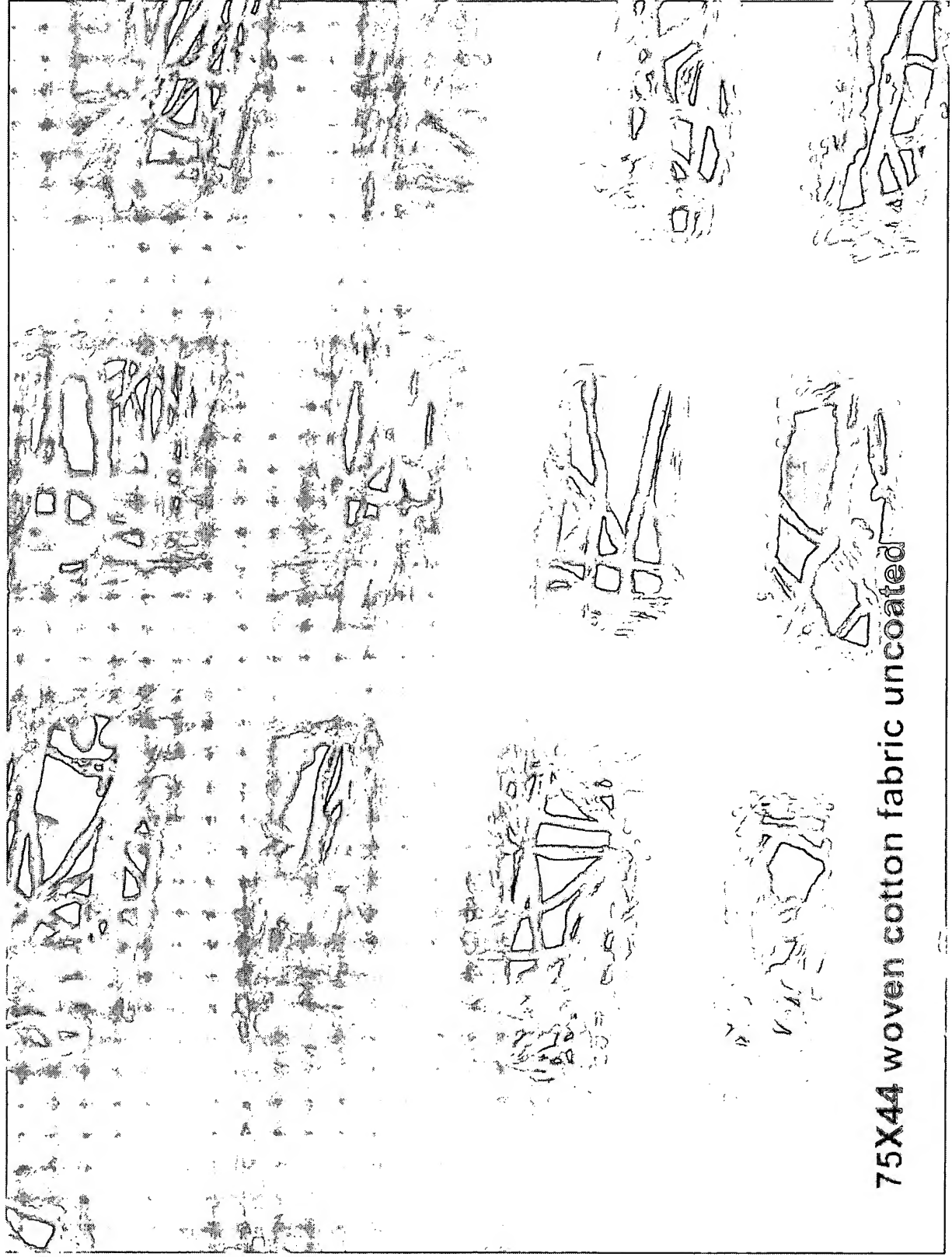


Exhibit E



75X44 woven cotton fabric uncoated

Exhibit F

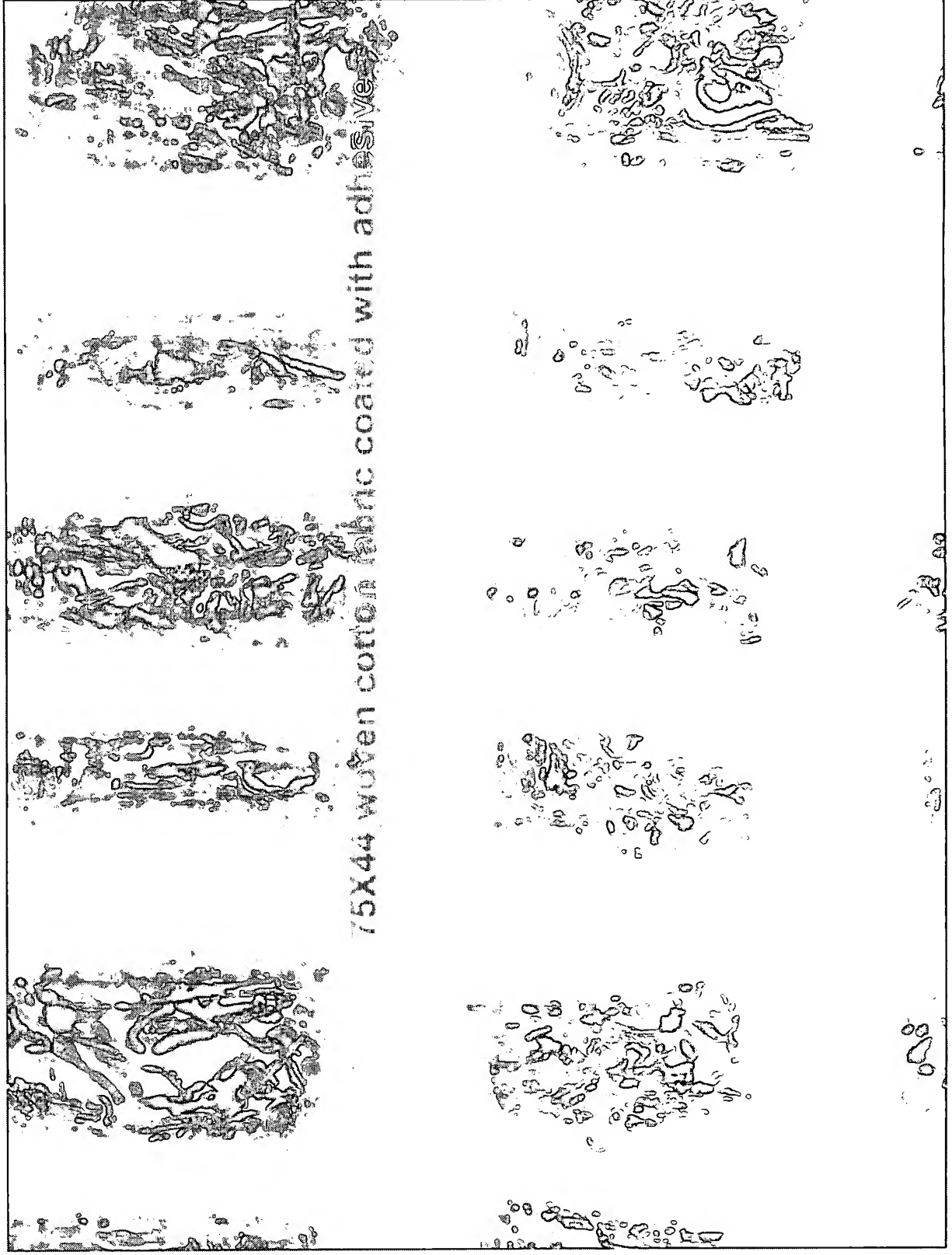


Exhibit G

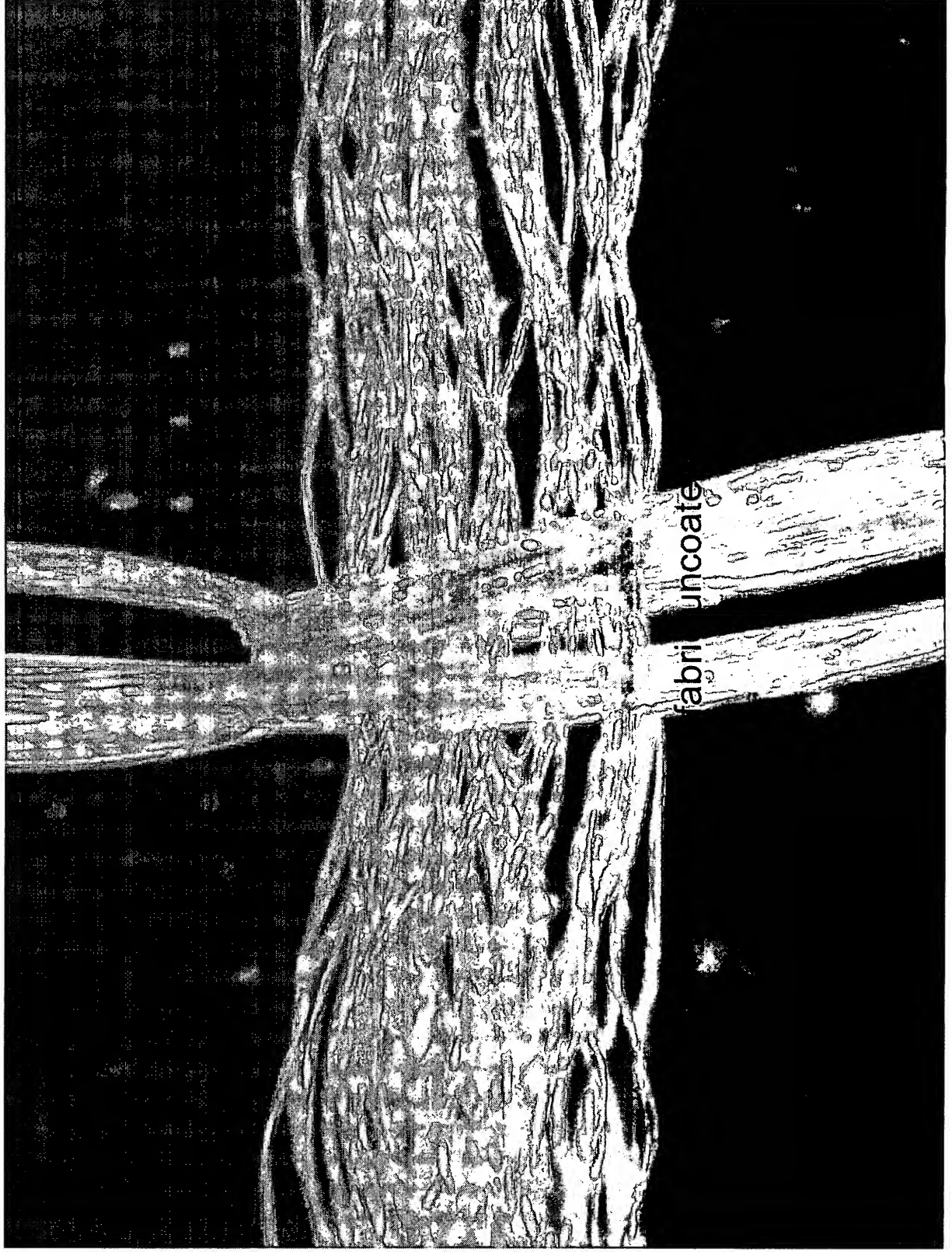


Exhibit H

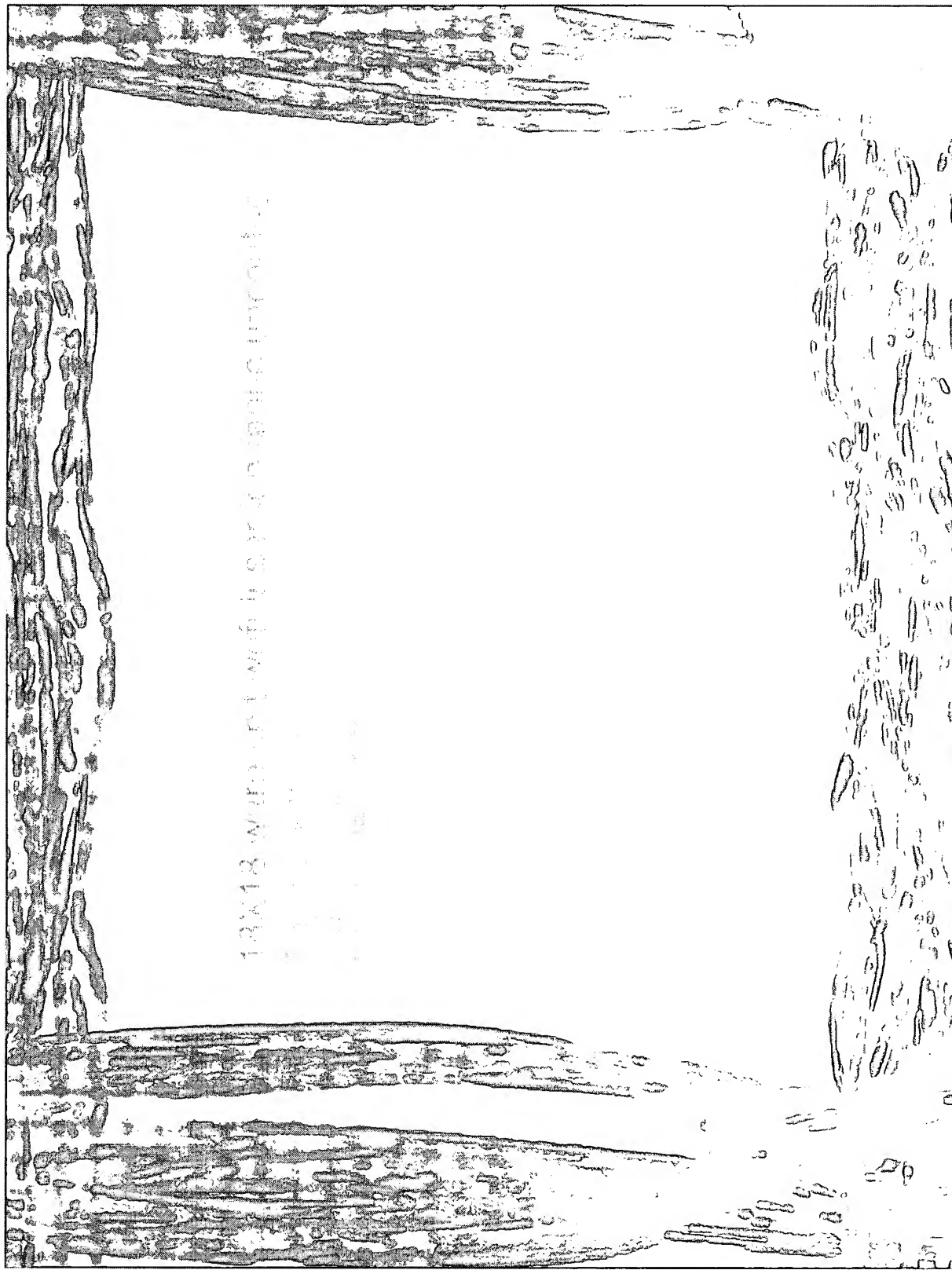


Exhibit I

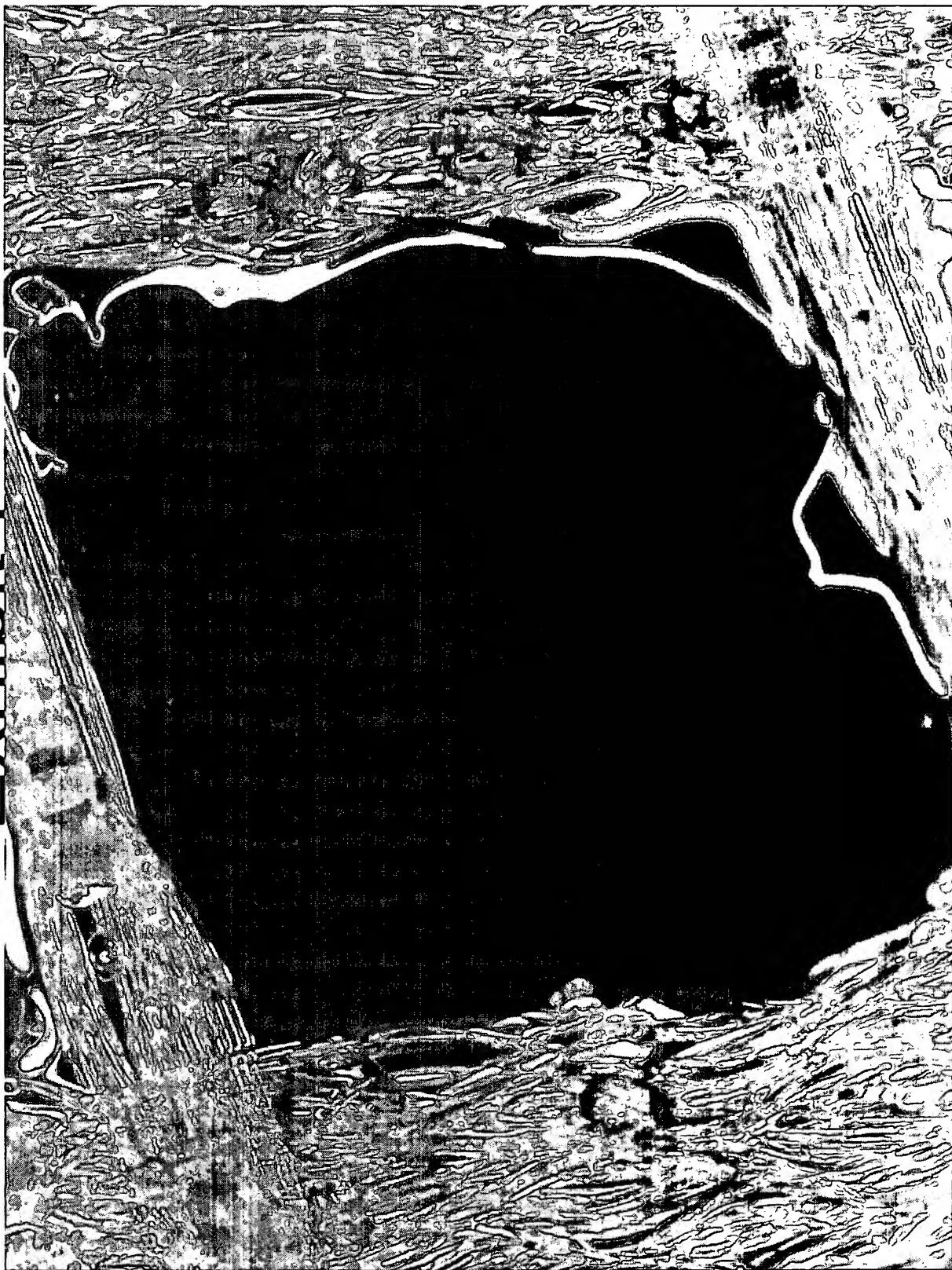


Exhibit J

